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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/429,080	10/29/1999	IDESAWA MASANORI	1794-0123P	5498

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EXAMINER

MEYER, DAVID C

ART UNIT PAPER NUMBER

2878

DATE MAILED: 03/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/429,080

Applicant(s)

MASANORI ET AL.

Examiner

David C. Meyer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0903,1103</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

The following remarks are provided in reply to the Response, received December 12, 2003.

The changes to the specification are acknowledged. The objection to the specification raised in the previous Office Action has been withdrawn.

The changes to the claims have been considered, but the objections to the claims raised in the previous Office Action are not overcome.

With regard to claim 1, in the previous Office Action, the Examiner asked which one of the predetermined current, the signal current, and the difference current is adapted to flow into the resistance layer. The current amendment changes claim 1 to read, in part, "the subtracted photoelectric current subtracted by said resistance is adapted to flow into said resistance layer". This change does not make clear which current is adapted to flow into the resistance layer.

Also with regard to claim 1, "the whole sensing sections" is still recited without proper antecedent basis. Furthermore, claim 1 recites "a portion", and later "a plurality of the portions". Here, "the portions" lacks proper antecedent basis.

Claim 2 now reads, in part, "said resistance subtracts a predetermined electric current". It is unclear whether "a predetermined electric current" refers to the "photoelectric current having a predetermined distribution" recited in claim 1 or to a separate electric current.

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In addition, a new rejection is made under 35 U.S.C. 102(b) in view of Japanese Patent Laid-open No. 5-118847, which was included in the Information Disclosure Statement received on September 4, 2003.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "a resistance subtracting a photoelectric current having a predetermined distribution from photoelectric currents generated in respective portions of [a] photoelectric layer". Later claim 1 recites that "the subtracted photoelectric current subtracted by said resistance is adapted to flow into said resistance layer". Claim 1 does not make clear whether "the subtracted photoelectric current" refers to the "photoelectric current having a predetermined distribution" or to a difference current produced by subtracting the "photoelectric current having a predetermined distribution" from "photoelectric currents generated in respective portions of [a] photoelectric layer".

Claim 2 depends from claim 1. Claim 2 recites "a predetermined electric current". It is unclear whether "a predetermined electric current" refers to the "photoelectric current having a predetermined distribution" recited in claim 1. The Examiner presumes the two currents referred to are one and the same, but the use of "a" instead of "the" or "said" creates ambiguity over whether a separate current is being recited.

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Claim 3 recites "an electric current to be subtracted having a predetermined distribution of electric current density is the one obtained by putting them corresponding the respective separated photoelectric devices together". The Examiner is unsure of what this means. In particular, what does "them" refer to?

Also, claim 3 recites "photoelectric currents generated in the photoelectric device which have been separated into the plural portions". Earlier claim 3 recites that the photoelectric layer is separated into plural portions that are adapted to act as individual photoelectric devices. Therefore, it is not the photoelectric device which has been separated into plural portions, but the photoelectric layer. It is the photoelectric device which *corresponds* to a portion of the photoelectric layer.

Claim 4 is rejected because it depends from claim 3.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Inoue in Japanese Patent Laid-open No. 5-118847.

Regarding claim 1, Inoue discloses a distance measuring apparatus comprising a plurality of photoconducting portions 3 in which electrical current is generated in response to incident light. A layer 27 is provided adjacent to the photoconducting portions 3. Layer 27 has a different conductivity (and therefore a different resistance)

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than the photoconducting portions 3. Hence, layer 27 could be called a resistance layer. Electrical currents generated in the photoconducting portions flow into layer 27 and are output at signal current output terminals 6,7 in a ratio corresponding to the relative resistances or conductivities between a respective terminal and the location where a light-generated electrical current flows into layer 27. The current output at a respective terminal would be a sum current from electrical currents generated in respective photoconducting portions 3. An electrode 29 is provided atop a layer 28, which acts to remove a "regular photocurrent" corresponding to "fixed light". Layer 28 could be called a subtracting resistance, and the removed "regular photocurrent" is apparently subtracted from other currents produced in respective photoconducting portions 3. See Fig. 4.

Regarding claim 2, the "regular photocurrent" is removed via a diode 33 that is oriented in the opposite direction of a ground diode. (See Fig. 5 and the description thereof.) In this arrangement, only electric current corresponding to light-generated current can be removed via diode 33. Therefore, the "removed photocurrent" cannot exceed the light-generated current. Hence, in regions where the light-generated current is lower than a fixed current, the subtracted photocurrent is equal to the light-generated current.

Regarding claim 3, a plurality of photoconducting portions 3 is disclosed. Currents from all portions flow into layer 27.

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The Examiner understands the limitations recited in claim 4 to be substantially similar to the limitations recited in claim 2. Inasmuch as Inoue anticipates the invention of claim 3, on which claim 4 depends, the rejection of claim 2 applies to claim 4.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Meyer whose telephone number is 571-272-2442. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DCM
March 12, 2004


DAVID PORTA
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